

**FINAL PHASE II**

# **ENVIRONMENTAL SITE ASSESSMENT**

## **FURON COMPANY**

McCAFFREY STREET MANUFACTURING FACILITY  
HOOSICK FALLS, NEW YORK 12090



PREPARED FOR

**FURON**

MAY 1996

PREPARED BY

**PARSONS ENGINEERING SCIENCE, INC.**

PRUDENTIAL CENTER  
BOSTON, MASSACHUSETTS 02199



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**List of Acronyms**

ASTM	-	American Society for Testing and Materials
BTEX	-	Benzene, toluene, ethylbenzene, xylene (total)
CEC	-	Condition of Concern
CLP	-	Contact Laboratory Protocol
ESA	-	Environmental Site Assessment
I.D.	-	Inside Diameter
MCL	-	Maximum Contaminant Level
Mg/Kg	-	Milligrams per Kilogram
Mg/L	-	Milligrams per Liter
NTU	-	Nephelometric Turbidity Unit
NYSDEC	-	New York State Department of Environmental Conservation
OVM	-	Organic Vapor Meter
PCB	-	Polychlorinated Biphenyls
POTW	-	Publicly Owned Treatment Works
PSAT	-	Pressure Sensitive Adhesive Tape
PTFE	-	Polytetrafluoroethylene
QA/QC	-	Quality Assurance/Quality Control
REC	-	Recognized Environmental Condition
SVOC	-	Semivolatile Organic Compound
TAGM	-	Technical and Administration Guidance Memorandum
TAL	-	Target Analyte List
TCE	-	Trichloroethene
TCL	-	Target Compound List
TPH	-	Total Petroleum Hydrocarbons
ug/kg	-	Micrograms per Kilogram
ug/L	-	Micrograms per Liter
USCS	-	Unified Soil Classification System
USEPA	-	United States Environmental Protection Agency
UST	-	Underground Storage Tank
VOC	-	Volatile Organic Compound



## **1.0            INTRODUCTION**

A limited Phase II Environmental Site Assessment (ESA) was conducted by Parsons Engineering Science, Inc. (Parsons ES) at the request of Furon Company and O'Melveny and Myers who are outside counsel for Furon Company. The Phase II investigation plan was developed to focus specifically on the findings and conclusions of a prior Phase I ESA, completed for the site in July and August 1995. As such, the Phase II ESA was designed to develop data relevant to:

- Areas of "recognized environmental conditions,"
- Other conditions of environmental concern, and
- "Baseline environmental conditions" at the site.

The objective of the Phase II investigation was to identify, to the extent feasible through limited sampling and analysis, whether any evidence of contamination existed due to historic site operations. The investigation process would also yield a limited data set that could be used by Furon Company to define "baseline environmental conditions" at the time of their initial occupancy and ownership of the property.

The Phase II ESA was conducted by Parsons ES in accordance with Title 6 of the New York State Compilation of Rules and Regulations, 6 NYCRR Part 360, April 1995, except as otherwise specified. The Phase II ESA was begun on February 20, 1996, and reported on May 2, 1996.

## **1.1            FINDINGS OF THE PHASE I ESA**

Parsons ES performed a Phase I ESA at the McCaffrey Street facility between July 24 and July 27, 1995, for Furon Company. The results of the Phase I ESA were presented to Furon Company in a Final Phase I Environmental Site Assessment Report on April 9, 1996. The Phase I ESA identified two "recognized environmental conditions," (RECs) as defined in American Society of Testing and Materials (ASTMs) Standard Practice E 1527:

1. A former 8000-10000 gallon #2 fuel oil underground storage tank (UST), which was removed in August 1995, presented a material threat of a release.
2. Floor drains and a sump in the vicinity of the mixing and coating operations on the first level of the facility presented a material threat of a release. The integrity of the sump pit sidewalls and bottom could not be verified through a visual inspection.

The UST (Henceforth, REC #1) was removed in August of 1995, subsequent to the performance of the Phase I ESA for the site. AlliedSignal Fluorglas contracted Clean Harbors Environmental Services to close and remove the UST in accordance with New York State Department of Environmental Conservation (NYSDEC) guidance. The excavated hole at the UST location reportedly evidenced no visual staining of the soil. Screening of the excavation by photoionization detector failed to detect volatile organic compounds. Confirmatory soil samples were collected from the side walls and the bottom of the excavation and analyzed by EPA Method 8260 for volatile organics and EPA Method 8270 for semi-volatile organics. No contamination was detected in these samples. The excavation was backfilled. The source of the backfill material was not identified.

Based on the Clean Harbors letter report and analytical data package, the UST appears to have been closed in accordance with state regulations and no evidence of fuel oil release from the tank or fill pipes was noted.

According to P.J. Beaumont, the sump in the vicinity of the mixing and coating operations (Henceforth, REC #2) continue in active use, receiving sanitary wastewater, process wastewater and drainage from the floor drains in the manufacturing area on the first floor. The wastewater captured is pumped to the city sanitary sewer lines. No drawings or other evidence to support this were made available to Parsons ES. The local Publically Owned Treatment Works (POTW) does not require the McCaffrey Street facility to permit these discharges. During the Phase I ESA, the integrity of the sump pit sidewalls and bottom could not be verified through a visual inspection.

The Phase I ESA also identified two other conditions of environmental concern (CEC). One was the "old" transformer mounted on a concrete pad in the rear of the property which was

known to contain Polychlorinated Biphenyls (PCBs) (Henceforth, CEC #1). During the Phase I ESA, the transformer appeared to be at least as old as the original facility building, which was built around 1961, and was not contained within any bermed area. The transformer was removed in December 1995. No visible signs of spillage or stressed vegetation around the transformer or transformer pad were noted during the Phase I and Phase II ESAs. However, spillage may have occurred during filling or replacement of transformer oils in the past. PCBs are relatively immobile in soils and do not degrade readily.

The second condition of environmental concern reported is the past practice of spreading oils in the former gravel driveways for dust suppression. This practice no longer occurs, and the former gravel driveways are now paved (Henceforth, CEC #2).

## 1.2 SCOPE OF WORK

The scope of the Phase II ESA was designed to address the recognized environmental conditions associated with the sump pit and the former UST, to evaluate two other conditions of environmental concern identified in the Phase I ESA and to establish the "baseline environmental conditions" for the property.

The scope of the Phase II investigations was as follows:

- Install five soil borings/monitoring wells to determine the "baseline groundwater quality" at the McCaffrey Street property.
- Develop five monitoring wells, and collect and analyze groundwater samples from all five monitoring wells for volatile organics, semi-volatile organics, and metals. Analyze two of the five monitoring well samples for total petroleum hydrocarbons (TPH).
- Collect three surface soil samples from around the "old" transformer and analyze for TPH and PCBs (CEC #1).



- Collect two surface soil samples from the former gravel driveway for PCB and TPH analysis to determine potential impacts from the spreading of oils for dust suppression practiced in the past (CEC #2).

### 1.3 SUMMARY OF THE PHASE II ESA FINDINGS

The soil sample results from the Phase II ESA indicate that five metal compounds (beryllium, chromium, nickel, selenium and zinc) were detected at concentrations above their respective NYSDEC soil cleanup levels. Total petroleum hydrocarbons were also detected at elevated concentrations in the soil samples collected from the paved driveway (formerly a gravel driveway). The groundwater sample results detected trichloroethene, antimony, iron and manganese at concentrations above the Federal Maximum Contaminant Level (MCL) and New York State Groundwater Quality Standards.

The Federal MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. The New York State Groundwater Quality Standards are the maximum permissible levels of a contaminant in fresh groundwater.



## 2.0 SITE DESCRIPTION

### 2.1 LOCATION AND DESCRIPTION OF SITE

The Furon Company McCaffrey Street site is located in the County of Rensselaer in the Village of Hoosick Falls, New York. **Figure 2-1** shows the Site Location Map for the McCaffrey Street facility. The site is a light industrial manufacturing facility occupying a parcel of land encompassing 6.471 acres. **Figure 2-2** presents the Map of Lands of the McCaffrey Street facility.

Aboveground structures present on the property are the main facility building, an 18,000 gallon propane storage tank, a metal storage shed and a newly installed transformer. The cement pad where the "old" transformer was located remains onsite. A smaller propane storage tank is present adjacent to the metal storage shed and is scheduled for removal by the facility. The remainder of the property consists of paved and gravel parking areas and roads, and gently sloped grassy areas. Underground utilities include two separate septic lines, shown on facility drawings as running from the facility to the town sewer at Carey Avenue, and the propane distribution line that runs from the propane vaporizer to warehouse 2. **Figure 2-2** shows the locations of these structures and the surveyed property lines. Underground utilities are not presented on **Figure 2-2**.

The facility building contains manufacturing operations as well as general administrative offices and a small research and development department. The original building was constructed in 1961. According to P.J. Beaumont, the McCaffrey Street facility manufacturing manager, additions were added in 1966 and 1975. The facility, as it exists, has a total area of approximately 60,000 square feet. The floor is a slab-on-grade with floor drains present in several areas.

The coating and mixing operations are located on the first floor of the building. The second floor consists mainly of administrative offices and small laboratories. The extruding and molding operations are located on the third floor. The fourth level is used for research and development and general storage.

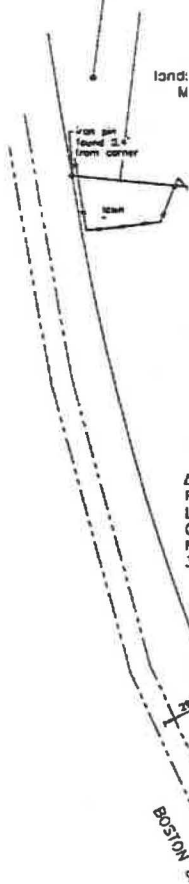








lands now or former  
Steven C. & Pamela



#### NOTES

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4. BOUNDARY LINES SHOWN ON THIS MAP ARE BASED ON RECOVERED CORNER MONUMENTATION AS SHOWN ON MAP REFERENCE #1.
5. THE SECOND PIECE OF PROPERTY CONVEYED BY DEED REFERENCE #1 PARCEL II IS DESCRIBED AS A 15' STRIP OF PROPERTY AND AN ADDITIONAL 27' STRIP OF PROPERTY BOTH OFF THE WESTERLY END OF THE LANDS OF HAYES AND BORDERING ON THE EASTERLY LINE OF BRENNSTUHL. THIS LINE IS SHOWN BY THE HEAVY SOLID LINE. THE REPUTED LOCATION OF THE BRENNSTUHL DEED LINE IS SHOWN BY THE HEAVY DOTTED LINE. THERE IS AN APPARENT OVERLAP OF THE CONVEYANCE FROM HAYES AND THE LANDS OF BRENNSTUHL. THE PARCEL SURVEYED MAY ALSO BE SUBJECT TO RIGHTS OF THE ADJOINERS AND THE RIGHTS OF THE PUBLIC ESTABLISHED THROUGH USAGE OF THE STREET PRESENTLY BEING MAINTAINED BY THE VILLAGE OF HOOSICK FALLS. A BOUNDARY LINE AGREEMENT BETWEEN ALL INVOLVED PARTIES IS RECOMMENDED TO ESTABLISH THIS LINE.
6. NO UNDERGROUND UTILITIES ARE SHOWN ON THIS MAP.

#### DEED REFERENCE

1. OAK MATERIALS GROUP, INC., SUCCESSOR IN INTEREST TO O/E/N ACQUISITIONS INC. TO OAK MATERIALS GROUP, INC. DATED APRIL 2, 1986 AND RECORDED IN THE RENSSELAER COUNTY CLERK'S OFFICE ON APRIL 10, 1986 IN LIBER 1404 OF DEEDS AT PAGE 181.

#### MAP REFERENCE

1. SURVEY OF A PORTION OF LANDS OF OAK MATERIALS GROUP INC. PREPARED BY CHARLES E. HARTNETT & HAROLD A. BEHRENS, DATED JULY 31, 1980.

#### TAX MAP REFERENCE

VILLAGE OF HOOSICK FALLS 37.6 - 3 - 1



SOURCE OF SURVEY MAP: SURVEYED BY DAVID F. BARRASS LAND SURVEYOR  
9 MAPLE STREET, CORINTH, NEW YORK



PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE



HOOSICK FALLS, NY  
ENVIRONMENTAL SITE ASSESSMENT

DEPT.

ENVIRONMENTAL ENGINEERING

DWG. NO.

728098-07500

FIGURE 2-2  
MAP OF LANDS  
McCAFFREY STREET FACILITY  
PHASE II ESA

SCALE

DATE

APRIL 1996

Utilities provided to the facility are electric, water, and sewer. Electricity to the facility is provided by Niagara Mohawk. Water and sewer are provided by the Village of Hoosick Falls. The "old" pad-mounted transformer was owned by Niagara Mohawk and was removed in December 1995. A new transformer was installed in December 1995 and it is owned by Furon Company.

## 2.2 SITE AND VICINITY CHARACTERISTICS

The McCaffrey Street site is located in the southwest corner of the Village of Hoosick Falls. The ground surface topography of the facility slopes away to the east, south and west, towards the floodplain of the Hoosic River. The area to the north side of the site is residential. The areas directly to the east, south, and west are largely undeveloped. A former rail line (Boston & Maine) is located near the western boundary of the property. The Hoosic River, which is located to the west of the rail line, is approximately 250 feet from the property boundary at its nearest point.

Surface water drainage at the facility is controlled by the local topography, which slopes moderately to the south-southeast. There are no sustained surface water bodies at the facility.

## 2.3 PHYSICAL SETTING

### 2.3.1 Regional Geologic Setting

Hoosick Falls lies in the New England Upland (Taconic Range) physiographic province. Bedrock outcrops are found at the surface throughout the New England Upland area. The bedding planes of the bedrock are often inclined, and other distortions from the horizontal are evident. These are the result of thrust and folding pressures exerted from the east as a landmass (actually an arc of volcanic islands) moved gradually westward during the Middle Ordovician Taconic mountain-building episode. This westward movement stacked and displaced large deposits of clay, sand, gravel and carbonates, which had accumulated on the floor of a deep ancient sea, moving them westward along faults as slices of rock, that became intermixed and stratigraphically disordered. As a result, the older rock graywacke, that forms the cap of the Rensselaer Plateau became perched on top of younger rock. Localized

exposures of limestone and dolomite, found in association with thrust faults here and there in the area, were dragged westward as blocks of carbonate-rich rock. Shales in the area were altered (metamorphosis) into phyllites and slates during this period of mountain building.

Glacial sediment deposits overlay the bedrock, resulting in deposits of sands, gravels, clays, and glacial till.

Most of Hoosick Falls lies along the Hoosic River flood plain. The area is relatively flat with some hills, except along the eastern town boundary where the topography slopes moderately to the west, towards the Hoosic River. The average elevation of Hoosick Falls is approximately 500 feet above sea level.

### 2.3.2 Site Geologic Setting

Six soil borings (one of the five soil borings was re-drilled) were advanced during the Phase II ESA at the McCaffrey Street facility to total depths ranging from 8.5 feet to 17.5 feet below ground surface. During the advancement of these borings, three geologic materials were encountered: artificial fill, glacial till, and bedrock. The Overburden Boring Reports are presented in **Appendix A**.

The fill material was encountered at all soil borings and was observed to be up to 2.7 feet thick at location MW-5M. The fill material generally consists of brown silt and sand, with little fine gravel and trace amounts of clay.

The glacial till was encountered beneath the fill. The till generally consists of grey-brown silt, with some sand and fine gravel, and trace amounts of clay, and its consistency is loose to medium dense. In addition, a very dense till unit was encountered at MW-4M and MW-4MA from 8 feet to 15 feet below ground surface.

Bedrock was encountered below the till at three of the six soil borings: MW-1M at 8.5 feet, MW-2M at 17.0 feet, and MW-5M at 6.5 feet below ground surface. Bedrock fragments from the soil boring advanced at MW-2M shows the bedrock to be a light grey graywacke.

### 2.3.3 Site Hydrogeologic Setting

During the advancement of the soil borings, groundwater was encountered at the following depths below ground surface:

<u>Location</u>	<u>Depth (feet below grade)</u>
MW-1M	1.0
MW-2M	11.2
MW-3M	6.6
MW-4M	5.0
MW-5M	2.0

Table 2-1 presents the monitoring well water level summary at the McCaffrey Street facility. Figure 2-3 shows the relative groundwater elevations and groundwater flow direction at the McCaffrey Street facility. Elevations of the monitoring wells were obtained with a level and a graduated surveying rod, after establishing an arbitrary datum. The arbitrary datum control point was located adjacent to the northeastern corner of the facility. The arbitrary elevation assigned to it was 10 feet. The groundwater flow direction in the overburden was determined to be radially towards the southeast, south and southwest, based on the ground water elevations measured in the five monitoring wells on February 26-27, 1996, and March 7, 1996. The groundwater flow direction also concurs with the general site topography which slopes to the south-southeast.

Recharge to the monitoring wells during well development and sampling was poor (recharge rate of less than 0.2 gallons per hour) at monitoring wells MW-1M and MW-4M, fair (recharge rate of 0.4 gallons per hour) at well MW-5M, and good (recharge rate of 0.3 gallons per hour) at wells MW-2M and MW-3M. The shallow groundwater encountered at MW-1M is believed to be perched water.



**TABLE 2-1**

**FURON COMPANY - PHASE II ESA  
McCAFFREY STREET  
MONITORING WELL WATER LEVEL SUMMARY**

<b>Location</b>	<b>Top of PVC Casing Elevation (feet)<sup>1</sup></b>	<b>Date of Water Level Measurement</b>	<b>Depth to Groundwater (feet)<sup>2</sup></b>	<b>Groundwater Elevation (feet)<sup>1</sup></b>
MW-1M	34.49	2/26/96	9.40	25.05
		2/27/96	9.70	24.79
		3/07/96	6.75	27.74
MW-2M	10.45	2/26/96	9.72	0.73
		2/27/96	9.67	0.78
		3/07/96	10.04	0.41
MW-3M	10.48	2/26/96	8.81	1.67
		2/27/96	8.70	1.78
		3/07/96	9.33	1.15
MW-4M	20.97	2/26/96	11.35	9.62
		2/27/96	14.80	6.17
		3/07/96	15.10	5.87
MW-5M	8.53	2/26/96	4.44	4.09
		2/27/96	4.95	3.58
		3/07/96	4.96	3.57

**Notes:**

- 1) All elevations are based upon an assumed elevation of 10 feet set for the arbitrary reference point located adjacent to the northeastern corner of the facility.
- 2) Distance to groundwater referenced to top of well casing.



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Steven C. & Pamela

lands  
M.

iron pit  
found 2.4  
feet corner

ARLON 31

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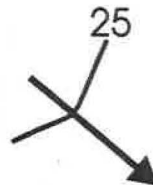
### LEGEND

⊕ MW-2M  
(0.41)

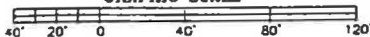
MONITORING WELL/ SOIL BORING WITH  
WATER TABLE ELEVATION (FT.)

25

GROUNDWATER ELEVATION CONTOUR  
(ARROW INDICATES DIRECTION OF FLOW)  
GROUNDWATER LEVEL MEASUREMENTS  
MADE ON 3/7/96.



### GRAPHIC SCALE



SOURCE OF SURVEY MAP: SURVEYED BY DAVID F. BARRASS LAND SURVEY  
9 MAPLE STREET, CORINTH, NEW YORK



**PARSONS**  
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**FURON**  
HOOSICK FALLS, NY  
ENVIRONMENTAL SITE ASSESSMENT

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**FIGURE 2-3**  
**GROUNDWATER ELEVATIONS AND**  
**GROUNDWATER FLOW DIRECTION**  
**McCAFFREY STREET FACILITY**  
**PHASE II ESA**

SCALE

DATE  
APRIL 1996



### 3.0 SITE HISTORY

#### 3.1 PAST SITE USE

According to P.J. Beaumont and Bob Grobuski, the shipping coordinator at the McCaffrey Street facility, prior to 1961 the property was vacant land. The facility was originally built in 1961 for Dodge Fibers Corp. and was used first for producing extruded tapes, and then, circuit board laminates. Oak Materials Group (Oak Electronics) purchased the property from Dodge Fibers between 1969 and 1971. Oak Electronics (Oak Industries) operated the facility until 1987 when it was sold to AlliedSignal Fluorglas. The property was sold to Furon Company in February 1996.

#### 3.2 CURRENT SITE USE

The McCaffrey Street site manufactures Polytetrafluoroethylene (PTFE) coated fiberglass and molded and extruded PTFE intermediates (Standard Industrial Classification codes 2295, 3089). According to the AlliedSignal Health and Safety Environmental Disclosure Document, the facility operates 365 days, 8,760 hours per year. The facility is also used for administrative offices and for research and development. The facility employs approximately 95 people.

Coated fiberglass is produced by coating woven fiberglass with a dispersion of premixed liquid Teflon® and an organic liquid surfactant (Triton®). The mixture is fed from a drum into a coating dip pan. The coating is then cured in an oven and collected on a web. Teflon® molding is produced by adding virgin or reprocessed Teflon® to a molding press under pressure where the mold is formed. The mold is then transferred to the curing oven for sintering. Teflon® is extruded by adding granular Teflon® in metered doses to a continuous heated extruder. Coating operations are located on the first floor and extrusion and molding operations are located on the third floor of the building.

Hazardous wastes generated from the manufacturing operations consist primarily of various coating formulations used in the mixing and coating areas and from research and development conducted on the fourth level. An area on the first level of the building is marked as the hazardous waste accumulation area and is equipped with a spill containment system. Wastes are accumulated in marked drums and disposed of within 90 days. The facility is designated

as a large quantity generator (EPA I.D. No. NYD 004986741). Wastes generated from research and development are accumulated in lab packs prior to disposal. Non-hazardous solid wastes are accumulated in the trash compactor adjacent to the loading dock.



## **4.0                    FIELD INVESTIGATION METHODOLOGY**

### **4.1                    SOIL BORINGS**

The objective of the soil boring program was to identify, through limited sampling and analysis, the possible presence of contamination in subsurface soils.

The soil borings were completed in accordance with the workplan. The only deviation in the soil boring program from that described in the work plan was the relocation of monitoring well MW-4M.

The location of monitoring well MW-4M was proposed in a wooded area where access to set up and drill would have been difficult. Therefore, MW-4M was relocated closer to the site, approximately 100 feet east of its proposed location. In addition, two soil borings (MW-4M and MW-4MA) were advanced at soil boring location MW-4M. During the first attempt to advance MW-4MA, a very dense till was encountered. The soil boring was drilled and left open overnite. The next morning no water was observed in the boring, therefore, the boring was abandoned. The second boring, MW-4M, was then advanced approximately 2.5 feet south of MW-4MA. Water was encountered at MW-4M and a monitoring well was installed. **Figure 4-1** presents the locations of the soil borings. Photographs were taken of all soil borings/monitoring well locations and are presented in **Appendix B**. The Overburden Boring Reports are included in **Appendix A**. Maxim Technologies Inc. of Ballston Spa, New York performed the drilling under the direction of Parsons ES personnel.

#### **4.1.1                Sampling Methods**

The soil borings were advanced using an Acker Soil Max drilling rig, equipped with 4.25-inch inside diameter (I.D.) hollow stem augers. During drilling, soil samples were collected at the surface (0-2 feet below grade) and at 5 foot intervals or at each stratigraphic change to the total depth of the boring. The soil samples were collected using a decontaminated 2-inch by 2-foot long carbon steel split spoon sampler. The split spoon was driven into undisturbed soil with a rig-mounted 140 lb hammer. Once the sample was collected, the augers were advanced to the top of the next sample interval. Samples were collected until split spoon refusal on bedrock or until a sufficient depth was drilled to install a 10 foot



lands now or formerly  
Steven C. & Pamela M

lands  
Mar

iron pin  
found 2.4"  
from corner

Δ  
R  
L  
C  
H  
N  
35'

BOSTON & MAR.

### LEGEND

- ⊕ MONITORING WELL/SOIL BORING LOCATION
- ▲ SURFACE SOIL SAMPLE LOCATION



SOURCE OF SURVEY MAP: SURVEYED BY DAVID F. BARRASS LAND SURVEY  
9 MAPLE STREET, CORINTH, NEW YORK

**P** PARSONS  
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE  
**FURON**  
HOOSICK FALLS, NY  
ENVIRONMENTAL SITE ASSESSMENT

DEPT. ENVIRONMENTAL ENGINEERING      DWG. NO. 728098-07500

FIGURE 4-1  
SAMPLE LOCATION MAP  
McCAFFREY STREET FACILITY  
PHASE II ESA

SCALE      DATE APRIL 1996



screen, in order to monitor the upper groundwater aquifer. Soil samples were classified according to the Unified Soil Classification System (USCS).

Once the split spoon was driven and removed from the soil boring, the split spoon was opened and immediately screened for volatile organics compounds (VOCs) using an Organic Vapor Meter (OVM) Model 580B. No elevated OVM readings were observed during the drilling program.

In addition to screening the split spoon, a soil sample was also collected and placed into a 16 ounce mason jar for headspace screening. Sufficient sample was placed in the mason jar to fill it half full. The mason jar was then sealed with aluminum foil and placed in a vehicle for approximately 20 minutes, allowing the temperature of the sample to equilibrate. Afterwards, a small hole (1/4-inch) was made in the aluminum foil and a headspace reading was taken with the OVM. No elevated OVM readings were observed during the headspace screenings. Since no elevated OVM readings were observed during the screening process, five of the six soil boring samples collected for chemical analysis were collected at the groundwater table as per the workplan. The remaining sample was collected because of a change in lithology, encountered in MW-4M at a depth of 6.1 feet, where the lithology changed from fine sand and some silt to coarse sand and gravel. Samples to be analyzed for volatile organic compounds were collected first. The remaining soil from the split spoon was then homogenized in a decontaminated stainless steel bowl with a decontaminated stainless steel utensil, and placed in the appropriate sample containers. The six soil samples collected during the soil boring program were analyzed for Target Compound List (TCL) volatiles and Total Petroleum Hydrocarbons (TPH). Two of the six samples (i.e., MW-1M-0 and MW-3M-05) were also analyzed for TCL semivolatiles and Target Analyte List (TAL) metals.

The soil cuttings generated from the soil borings were placed into 55-gallon drums and labeled as non-hazardous. A total of six soil drums were generated and staged in a central location. After the soil boring was completed, a monitoring well was installed at each location. Section 4.3 discusses the monitoring well installation procedures.

## **4.2 SURFACE SOILS**

The objective for the collection of surface soil samples was to identify, through limited sampling and analysis to the extent feasible, the possible presence of contamination in surface soils around the old transformer pad and the gravel driveway.

#### **4.2.1            Sampling Methods**

Three (3) surface soil samples, TF-1M-13, TF-2M-13, and TF-3M-13, were collected to document soil conditions around the old transformer pad. The old transformer pad had no spill prevention or controls present. The old transformer pad contained 1.5 feet of gravel, which was removed before sample collection. All three samples were collected beneath the gravel, 1.5 feet to 3.5 feet below ground surface. No visible signs of leaks or stains were observed in the gravel or soil. **Figure 4-1** presents the locations of the surface soil samples. Photographs were taken of all surface soil sampling locations and are presented in **Appendix B**.

Two (2) surface soil samples, GD-1M-1 and GD-1M-2, were collected beneath the asphalt driveway (formerly a gravel driveway) to determine potential impacts from the past spreading of oils for dust suppression. The first soil sample, GD-1M-1, was collected from 0.25 to 1.0 feet below ground surface. The asphalt at this location was approximately 0.25 feet thick. The surface soils had an oily stained zone from 0.25 to 0.5 feet below grade. The second soil sample, GD-1M-2, was collected from 1.25 to 2 feet below ground surface. At this location an oily stained zone was encountered at a depth of 1.25 to 1.5 feet below ground surface.

The five (5) surface soil samples collected at the McCaffrey Street facility were collected by driving a decontaminated 3-inch by 2-foot long carbon steel split spoon sampler. The split spoon was driven into undisturbed soil with a rig mounted 140 lb hammer. Upon retrieval, the split spoon was opened and immediately screened for VOCs. Afterwards, the soil sample was mixed in decontaminated stainless steel bowl with a decontaminated stainless steel utensil, and placed in the appropriate sample containers. Although oily stains were observed in the two asphalt driveway samples, no elevated OVM readings were recorded from the five surface soil samples collected at the McCaffrey Street facility. The five surface soil samples, TF-1M-12, TF-2M-13, TF-3M-13, GM-1M-1 and GD-1M-2, were analyzed for PCBs and TPH.

#### **4.3                    MONITORING WELL INSTALLATION**

Five monitoring wells (MW-1M, MW-2M, MW-3M, MW-4M, and MW-5M) were installed at the McCaffrey Street facility to identify and characterize potential releases of hazardous

materials or chemicals from areas of environmental concern, and to establish baseline groundwater quality at the site. The monitoring wells were installed in accordance with NYSDEC guidelines.

The monitoring wells MW-2M, MW-3M, and MW-4M contained 10-foot well screens with the top of the screens extending 2 feet to 4 feet above the water table. MW-1M was installed on top of the bedrock, which was encountered at approximately 8.5 feet below ground surface. MW-1M was installed with a 5-foot well screen. MW-5M was installed approximately 2 feet into the bedrock in order to install a 5 foot screen. Bedrock at MW-5M was encountered at 6.5 feet below ground surface.

All five monitoring wells were constructed of new 2-inch schedule 40 Polyvinyl Chloride (PVC) with a screen slot size of 0.010 inch, threaded flush joints and an expandable cap. A coarse grained sand pack (morie #0 sand) was poured in the annular space between the well screen and the hollow stem augers, at least to the top of the screen and not more than 6 inches below the bottom of the screen. The augers were removed as the annular space was filled with sand. At all wells except MW-1M and MW-2M, 0.3 feet to 0.6 feet of a finer grained sand (morie #00) was placed on top of the coarser grained sand. At MW-1M and MW-2M the fine grain sand was not installed due to the limited depth of these wells. The total length of sand placed above the top of the screen did not exceed 2.3 feet. Bentonite pellets were then placed on top of the sand to approximately 1 to 2 feet below ground surface, and then hydrated. Afterward, a protective steel casing, 4 inches in diameter by 5 feet long, was placed over the monitoring well pipe. The protective steel casing extended at least 1.5 feet below the ground surface, but not in contact with the sandpack. The protective steel casing was then held in place, by pouring bentonite pellets or chips around the steel casing, up to the ground surface. A padlock was placed on the protective steel casing. The monitoring well completion diagrams are presented in **Appendix C**.

After well installation was completed, the downhole drilling tools (i.e., hollow stem augers, drilling rods, split spoons, etc.) were decontaminated in accordance with the workplan. All liquids generated from the decontamination process were placed in 55-gallon drums and staged in a central location. A total of six drums of decontamination water were generated.

#### 4.4 MONITORING WELL DEVELOPMENT

The five monitoring wells installed at the McCaffrey Street facility were developed a minimum of two days after well installation. The following is the procedure used for the development of these wells:

- Measure depth to groundwater and well depth with an electronic water level meter.
- Calculate volume of water within the well and the sand pack.
- Using a PVC bailer, surge the well for up to five minutes to remove any silt and clay "skin" that may have formed on the borehole wall while drilling.
- Measure the conductivity, pH, temperature, and turbidity of the surge water.
- Purge up to five well volumes or to dryness. If the well recharges, take conductivity, pH, temperature, and turbidity readings after each volume of water that is evacuated.

Only two of the five monitoring wells (MW-2M and MW-3M) had sufficient recharge to support removal of five well volumes during development. One monitoring well (MW-5M) had fair to poor recharge and after purging one volume with a hand bailer, the well bailed dry. The water level at MW-5M recovered to its static water level after approximately 3 hours. The two remaining monitoring wells (MW-1M and MW-4M) had poor recharge. After purging one volume these wells were also dry. These two wells recovered to their static water levels within approximately 8 hours.

At the monitoring wells with good recharge, i.e., MW-2M and MW-3M, the pH, conductivity, and temperature measurements stabilized after five well volumes were evacuated. The final turbidity values measured in all wells after development were all greater than 100 NTUs. The groundwater generated during monitoring well development was placed in 55-gallon drums. A total of two drums were generated and labeled as non-hazardous waste. These drums were staged in a central location.

## **4.5 GROUNDWATER SAMPLING**

### **4.5.1 Monitoring Well Purging**

The five monitoring wells at the McCaffrey Street facility were sampled on March 7-8, 1996. All monitoring wells were purged on March 7 prior to sampling. Before sampling the wells, the following well purging procedure was followed:

- Measure depth to groundwater and well depth with a decontaminated electronic water level meter.
- Calculate the standing water volume in the well.
- Using a dedicated disposable teflon bailer, purge three to five well volumes or to dryness, until the indicator parameters (conductivity, pH, temperature, and turbidity stabilize. Take Conductivity, pH, temperature, and turbidity measurements were taken at the start of purging and every volume thereafter. MW-3M was purged using a peristaltic pump and teflon tubing.
- After purging the well, leave the teflon bailer in the monitoring well to be used for sampling.

Due to their slow recharge rate and limited quantities of water in the wells, monitoring wells MW-1M and MW-4M were allowed to recharge approximately 6 hours before they were sampled. The turbidity values recorded after purging the wells were as follows:

- MW-1M > 1000 NTUs
- MW-2M > 1000 NTUs
- MW-3M 8 NTUs
- MW-4M > 1000 NTUs
- MW-5M > 1000 NTUs

### **4.5.2 Monitoring Well Sampling**

The monitoring wells at the McCaffrey Street facility were sampled using dedicated disposable teflon bailers. Groundwater samples collected for volatile analyses were collected first, before any of the other parameters, in a manner that would minimize the loss of volatile compounds. At MW-3M, the VOCs were collected with a teflon bailer. The

remaining parameters were collected using a peristaltic pump. Sampling for the remaining parameters was carried out in the following sequence: metals, semivolatiles, and TPH. Only two of the five wells (MW-1M and MW-3M) were analyzed for TPH. The turbidity values recorded during sampling, after the samples for metals were collected, were as follows:

- MW-1M 34 NTUs
- MW-2M 20 NTUs
- MW-3M 17 NTUs
- MW-4M 79 NTUs
- MW-5M 59 NTUs

Groundwater samples were collected with the required quality assurance/quality control (QA/QC) samples, and transported to the laboratory for chemical analysis following NYSDEC-CLP methodology.



## **5.0                    RESULTS**

### **5.1                    ANALYTICAL METHODS**

The six soil boring samples, five surface soil samples, and five groundwater samples collected during the Phase II ESA were packaged and transported to the laboratory, IEA, Inc., located in Monroe, Connecticut. IEA, Inc., is a Contract Laboratory Protocol (CLP) certified laboratory by the New York State Department of Health. The samples were analyzed for one or more of the following parameter suites: TCL volatile organics per NYSDEC-CLP, TCL semivolatiles per NYSDEC-CLP, PCBs and TAL metals per NYSDEC-CLP, and TPH by USEPA Method 418.1 (SW-846).

### **5.2                    Soil Sampling Results**

NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046 (revised January 24, 1994) values were used as a basis of comparison for the soil sample results. For metals, the soil cleanup objective concentration which was used for comparison, was the NYSDEC TAGM value or the background concentration determined from the sample, whichever was higher. These concentrations are presented in **Table 5-1**. Soil sample MW-1M-0 was collected at the topographic high elevation at the facility, and was designated as the background soil location. Soil sample MW-3M-05 which was located at a topographic low elevation at the facility was designated as the downgradient soil sample location.

The full chemical analysis results for the soils are presented in **Appendix D**.

Four VOCs were detected in the six soil samples. None of the four compounds exceeded their respective TAGM value. One of the four compounds, acetone, which is a common laboratory contaminant, was detected in all samples including the field blank sample. Another compound, methylene chloride, which is also a common laboratory contaminant, was detected at estimated concentrations in four of the six samples. The third compound detected, 2-butanone, which is a common laboratory contaminant, and a contaminant in acetone, was detected in only one of the soil samples (MW-2M-10). Trichloroethene was also detected at an estimated concentration of 4.0 ug/kg at MW-1M-0.



TABLE 5-1

**FURON COMPANY PHASE II ESA  
McCAFFREY STREET FACILITY  
RECOMMENDED SOIL CLEANUP OBJECTIVE CONCENTRATIONS**

<b>Metal Compound</b>	<b>NYSDEC TAGM Value (mg/kg) (*Source)</b>	<b>Site Background Concentration (mg/kg)</b>	<b>Recommended Soil Cleanup Objective Concentration (mg/kg) (*Source)</b>
Aluminum	SB	1590	1590
Antimony	SB	ND	ND
Arsenic	7.5 or SB	0.78	7.5
Barium	300 or SB	46.9	300
Beryllium	0.16 or SB	0.32	0.32
Cadmium	1 or SB	0.19	1
Calcium	SB	3340	3340
Chromium	10 or SB	1.7	10
Cobalt	30 or SB	1.6	30
Copper	25 or SB	3.2	25
Iron	2000 or SB	2180	2180
Lead	4-61	0.48	**61
Magnesium	SB	712	712
Manganese	SB	37.4	37.4
Mercury	0.1	ND	0.1
Nickel	13 or SB	4	13
Potassium	SB	67	67
Selenium	2 or SB	ND	2
Silver	SB	ND	ND
Sodium	SB	424	424
Thallium	SB	ND	ND
Vanadium	150 or SB	2.1	150
Zinc	20 or SB	7.6	20

## Notes:

SB - Site Background

ND - Not Detected

\* Source: Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels.

\*\* Special Condition (see text)

Four semivolatile compounds were detected in the two soil samples, MW-1M-0 and MW-3M-05, analyzed for semivolatiles at concentrations below their respective TAGM value. The compounds detected were di-n-butylphthalate, bis(2-Ethylhexyl)phthalate, benzo(a)pyrene, and benzo(g,h,i)perylene. The compounds di-n-butylphthalate and bis(2-Ethylhexyl)phthalate were also reported at estimated concentrations in the field blank sample. Benzo(a)pyrene and benzo(g,h,i)perylene were also detected as estimated values at MW-1M-0.

TPHs were detected in four of the eleven soil samples analyzed for TPHs. The highest TPH levels were detected in the paved driveway samples (CEC #2) GD-1M-1 and GD-1M-2 at concentrations of 3760 mg/kg and 831 mg/kg, respectively. The other two soil samples MW-1M-0 and TF-1M-13 (CEC #1) reported low concentrations of 136 mg/kg and 50.7 mg/kg, respectively. **Figure 5-1** presents the concentrations of TPHs in soils and the metals of concern detected above the TAGM values.

Two PCB compounds, Aroclor-1254 and Aroclor-1260, were detected at estimated concentrations well below their respective TAGM values. The two compounds were detected in the following three soil samples: TF-1M-13, GD-1M-1, and GD-1M-2.

Nineteen metals were detected in the two soil samples MW-1M-0 and MW-3M-05 analyzed for metals. Eleven of the 19 compounds exceeded their respective recommended soil cleanup objective concentration. These compounds were aluminum, beryllium, calcium, chromium, iron, magnesium, manganese, nickel, potassium, selenium, and zinc. While all of the metals can occur naturally in soil, several of them are more common constituents of soil (i.e., aluminum, calcium, iron, magnesium, manganese, and potassium) and are generally considered to be less toxic than the others listed. The other metals listed, which are more of a concern, are discussed below. **Figure 5-1** presents the concentrations of the metals of concern in soils.

Beryllium was detected in both soil samples. The recommended soil cleanup objective concentration for beryllium, is 0.32 mg/kg which was detected in the background soil sample, MW-1M-0. The compound was detected in MW-3M-05 at a concentration of 0.53 mg/kg.



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from corner

Δ R L C N 3

BOSTON &

### LEGEND

COMPOUND	CONCENTRATION(mg/kg)
TPHs	3760

⊕ MW-2M  
(0.41)

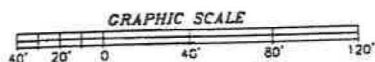
MONITORING WELL/ SOIL BORING WITH  
WATER TABLE ELEVATION (FT.)



GROUNDWATER ELEVATION CONTOUR  
(ARROW INDICATES DIRECTION OF FLOW)  
GROUNDWATER LEVEL MEASUREMENTS  
MADE ON 3/7/96.

▲ GD-1M-1  
NA  
ND

SURFACE SOIL SAMPLE LOCATION  
NOT ANALYZED  
NOT DETECTED



SOURCE OF SURVEY MAP: SURVEYED BY DAVID F. BARRASS LAND SURV  
9 MAPLE STREET, CORINTH, NEW YORK

R:\GRAPHICS\ALLIEDSI\FURON\MAPLANDS.CDR(RCS)



PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE



FURON

HOOSICK FALLS, NY  
ENVIRONMENTAL SITE ASSESSMENT

DEPT.

ENVIRONMENTAL ENGINEERING

DWG NO.

728098-07500

### FIGURE 5-1

CONCENTRATIONS OF TPHs AND  
METALS OF CONCERN IN SOILS  
McCAFFERY STREET FACILITY  
PHASE II ESA

SCALE

DATE

APRIL 1996

Chromium was detected in MW-1M-0 at a concentration of 1.7 mg/kg and in MW-3M-05 at a concentration of 11.6 mg/kg. The recommended soil cleanup objective concentration for chromium is 10 mg/kg.

Nickel was detected in both soil samples at concentrations of 4.0 mg/kg in MW-1M-0, and 19.3 mg/kg in MW-3M-05. The recommended soil cleanup objective concentration for nickel is 13.0 mg/kg.

Selenium was only detected in the soil sample MW-3M-05, at a concentration equal to the recommended soil cleanup objective concentration of 2.0 mg/kg.

The TAGM value for zinc is 20.0 mg/kg. It was exceeded in soil sample MW-3M-05, which had a concentration of 60.5 mg/kg.

The lead results were viewed as a special condition. The background TAGM value for lead in soils varies widely. The average levels in undeveloped, rural areas may range from 4-61 mg/kg, and in metropolitan or suburban areas or near highways the average levels may range from 200-500 mg/kg. Lead was detected in soil sample MW-1M-0 at 0.48 mg/kg and in soil sample MW-3M-05 at 12 mg/kg. Therefore the recommended soil cleanup objective concentration for lead at the McCaffrey Street facility is considered to be 61 mg/kg.

### 5.3 GROUNDWATER SAMPLING RESULTS

Groundwater sampling results were compared to the New York State Groundwater Class GA standards, the New York State Primary Drinking Water Quality standards, and the Federal Safe Drinking Water Act (MCLs).

The chemical analysis results for the groundwater samples are presented in **Appendix E**. **Figure 5-2** presents the Concentrations of Compounds Exceeding Groundwater Quality Standards or MCLs.

Two VOCs, trichloroethene and 1,2-dichloroethene(total), were detected in the groundwater samples collected from the five monitoring wells. Trichloroethene was detected in two wells MW-2M and MW-5M at concentrations above the Federal and New York State standards which is 5 ug/l. The highest concentration of 13 ug/l was detected in MW-2M.



lands now or former  
Steven C. & Pamela K

lands  
Ma

iron pit  
found 2.4'  
from corner

ARLINGTON ST

IRON  
MAN

BOSTON ST

#### LEGEND

COMPOUND	CONCENTRATION(ug/l)
IRON	1390

⊕ MW-2M  
(0.41)

MONITORING WELL/SOIL BORING WITH  
WATER TABLE ELEVATION (FT.)

25

GROUNDWATER ELEVATION CONTOUR  
(ARROW INDICATES DIRECTION OF FLOW)  
GROUNDWATER LEVEL MEASUREMENTS  
MADE ON 3/7/96.



SOURCE OF SURVEY MAP: SURVEYED BY DAVID F. BARRASS LAND SURVEY  
9 MAPLE STREET, CORINTH, NEW YORK



PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE



HOOSICK FALLS, NY  
ENVIRONMENTAL SITE ASSESSMENT

DEPT. ENVIRONMENTAL ENGINEERING

DWG NO.  
728098-07500

#### FIGURE 5-2

CONCENTRATIONS OF COMPOUNDS EXCEEDING  
NEW YORK STATE GROUNDWATER QUALITY  
STANDARDS OR FEDERAL MCLs  
McCAFFERY STREET FACILITY  
PHASE II ESA

SCALE

DATE APRIL 1996

Trichloroethene was also detected in MW-5M at an estimated concentration of 6.0 ug/l. In the duplicate sample of monitoring well MW-5M, which is identified as MW-15M, trichloroethene was detected at an estimated concentration of 7.0 ug/l. The compound 1,2-dichloroethene(total), which is a breakdown product of trichloroethene, was detected in MW-5M and the duplicate (MW-15M) at estimated concentrations of 2.0 ug/l each.

Chloroform was detected in the trip blank and field blank samples at estimated concentrations of 3.0 ug/l and 2.0 ug/l, respectively. These values are also below the Federal MCLs and the New York State Groundwater Quality Standards.

Three semivolatiles, diethylphthalate, di-n-butylphthalate, and bis(2-Ethylhexyl)phthalate were detected. The three compounds were estimated at low concentrations ranging from 0.3 ug/l to 6.0 ug/l. All three compounds were also detected in the field blank sample, and are common laboratory contaminants.

No TPHs were detected in any of the groundwater samples collected from the five monitoring wells.

Metals were detected in the five monitoring wells. Five metals which were not detected include arsenic, beryllium, copper, mercury and thallium. Three of the 18 compounds detected exceeded their respective Federal MCLs or New York State Class GA Standards. Antimony, which has a Federal MCL is 6.0 ug/l, was detected at a maximum concentration of 16.0 ug/l in monitoring well MW-2M. Iron was detected at a maximum concentration of 3060 ug/l in monitoring well MW-4M, and exceeded the New York State Standard of 300 ug/l in 4 of the 5 wells sampled. Manganese, with a maximum concentration of 343 ug/l in MW-4M, exceeded the New York State standard of 300 ug/l in two of the five wells. Other compounds detected included aluminum, calcium, cobalt, magnesium, potassium, sodium and vanadium and zinc. Some of these metals (aluminum, calcium, magnesium, potassium and sodium) along with iron, manganese and zinc are commonly found in the groundwater. These compounds are generally considered to be less toxic. Metals that are generally considered to be more toxic (chromium, lead, and nickel) were also detected, but at concentrations below the Federal and State groundwater standards. In addition, the maximum concentrations of iron and manganese were found in MW-4M. The groundwater sample collected at MW-4M reported an elevated turbidity of 79 NTUs.



## **6.0 FINDINGS, CONCLUSIONS and RECOMMENDATIONS**

### **6.1 FINDINGS**

The soil analysis results of the Phase II ESA conducted at the McCaffrey Street facility, indicate that metals were detected above the recommended soil cleanup objective concentration in the topographically downgradient soil boring sample MW-3M-05. Non-inclusive of those compounds which are common constituents in soil (i.e., aluminum, calcium, iron, manganese, magnesium, and potassium), the metal compounds of concern and their concentrations are as follows: beryllium - 0.53 mg/kg, chromium - 11.6 mg/kg, nickel - 19.3 mg/kg, selenium - 2 mg/kg and zinc 60.5 mg/kg. These compounds, except for zinc, were detected at concentrations at or just above their respective recommended soil cleanup objective concentration. Zinc was detected at a concentration which is three times above its recommended soil cleanup objective concentration of 20.0 mg/kg.

The soil analysis results also revealed elevated concentrations of TPH in the soil samples collected in the paved driveway (formerly a gravel driveway) (CEC #2). The sample collected near the surface GD-1M-1 (beneath the asphalt) had an oily stained zone and had a TPH concentration of 3760 mg/kg. The soil sample GD-1M-2, collected beneath GD-1M-1 also contained an oily stained zone and had a concentration of 831 mg/kg. There is no TAGM value for TPH in soils. No volatile organic compounds, semivolatiles, or PCBs were detected at concentrations above their respective soil cleanup concentration.

The groundwater analysis results indicate that TCE was detected in the groundwater. The TCE concentration detected in MW-2M was 13 ug/l. The TCE concentrations detected in well MW-5M and its duplicate MW-15M were estimated at 6 ug/l and 7 ug/l, respectively. The Federal Safe Drinking Water Act MCL and the New York State Groundwater Quality Standards for TCE is 5 ug/l. In addition, trace concentrations (2J ug/l) of 1,2-dichloroethene were reported in monitoring well MW-5M and the duplicate. Three metal compounds antimony, iron, and manganese, were also detected above the Federal MCLs or New York State Groundwater Standards. Antimony was detected at a concentration of 16 ug/l in MW-2M; its Federal MCL is 6 ug/l. Iron was detected in all monitoring wells except MW-2M. Iron was detected at a maximum concentration of 3060 ug/l in MW-4M; its New York State Groundwater standard is 300 ug/l. Manganese, which has a New York State



standard of 300 ug/l, was detected in MW-4M at a concentration of 343 ug/l. Other metal compounds such as aluminum, calcium, cobalt, magnesium, potassium, sodium and vanadium were also detected, but have no Federal MCLs or New York State Groundwater Quality Standards. No semivolatile organic compounds were detected at concentrations above their respective Federal MCL or the New York State Groundwater Quality Standard.

## 6.2 CONCLUSIONS

The Phase II ESA was conducted to address two recognized environmental conditions, and two conditions of environmental concern to establish "baseline environmental conditions" of the property. The two recognized environmental conditions were the former UST which presented a material threat of a past release (REC #1), and the floor drains and sump in the vicinity of the mixing and coating operations on the first level of the facility (REC #2). Other conditions of environmental concern included the "old" transformer which was known to contain PCBs (CEC #1), and the historic practice of spreading oils in the former gravel driveways for dust suppression (CEC #2). Through limited sampling and analysis, the Phase II ESA identified the presence of five metals in site soils at concentrations above their respective TAGM value. Two soil boring samples were analyzed for metals. One sample was collected at the topographically high elevation of the site, the other sample was collected at a topographically low elevation of the site. The former was considered as the background soil sample location, and the latter was considered as the downgradient soil sample location. One of the five metals, chromium, is presently used in the facility's manufacturing process.

The two surface soil samples collected in the paved driveway (formerly a gravel driveway) to investigate the historic practice of spreading oils on the gravel driveways for dust suppression (CEC #2), detected elevated concentrations of TPHs. Both soil samples also evidenced oily stained zones.

Three surface soil samples were collected adjacent to the "old" transformer pad and analyzed for TPHs and PCBs (CEC #1). TPHs were detected in only one of the three soil samples at a concentration of 50.7 mg/kg. No PCBs were detected in the three samples. Although several metal compounds and TPHs were detected in site soils at the McCaffrey Street facility, the detected concentration of the compounds are considered minor.

The results of the groundwater analysis indicate that two monitoring wells topographically downgradient of the facility have been impacted by trichloroethene (TCE), as detected in monitoring wells MW-2M and MW-5M. The metal compounds, antimony, iron, and manganese, were also detected at concentrations above their respective Federal MCL and/or the New York State Groundwater Standards.

The facility uses small quantities of solvents in the research and development lab, located on the fourth level of the facility, which are presently stored in marked storage cabinets and disposed of in various sized lab packs (1 and 50 gallons) for off-site disposal. The facility also maintains floor drains and a sump in the vicinity of the mixing and coating operations on the first level of the facility. The integrity of the sump pit sidewalls and bottom have not been verified (REC #2).

The source for TCE may be related to the sump pit. According to P.J. Beaumont, TCE is not currently stored or generated at the facility.

No TPHs or Aromatic Volatile Organic Compounds (i.e., BTEXs) were detected in the groundwater samples. Therefore, it does not appear that the former UST presented a material threat of a release at the facility (REC #1).

### **6.3 RECOMMENDATIONS**

Due to the TCE concentrations detected in the two topographically downgradient monitoring wells MW-2M and MW-5M, it is recommended that a second round of groundwater sampling be conducted at the five newly installed monitoring wells at the McCaffrey Street facility to verify the VOC groundwater analysis results reported during the Phase II ESA.

Additionally, filtered and unfiltered groundwater samples should be collected from the wells to verify the presence of metals and to define if it is associated with soil fines present in the well.

In addition to collecting and characterizing a second set of groundwater data from all wells, Parsons ES recommends that Furon Company begin record searches to determine if past evidence of TCE usage at the facility can be found. Information available to Parsons ES does not provide any evidence that TCE was used at this facility in the past.



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